DRAFT PRE-SOLICITATION FOR SUSTAINABLE FREIGHT TRANSPORTATION PROJECTS SEPTEMBER 30, 2016

1. PURPOSE OF SOLICITATION

This is a competitive grant solicitation. The California Energy Commission's (Energy Commission's) Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) announces the availability of up to $27 million in grant funds for projects that will demonstrate transportation projects for medium and heavy-duty (MHD) advanced vehicle technologies within California's freight movement system.

2. POLICY DRIVERS

- 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program (CEC-600-2015-014)[1]
- Executive Order B-32-15 California Sustainable Freight Action Plan[2]
- Executive Order B-16-12 ZEV Action Plan[3]
- ARB Mobile Source Strategy[4]
- Fixing America's Surface Transportation Act[5]

3. AVAILABILITY OF FUNDS

A total of $27 million is available for awards under this solicitation. The Energy Commission, at its sole discretion, reserves the right to increase or decrease the amount of funds available under this solicitation.

4. MINIMUM AND MAXIMUM AWARD AMOUNTS

Projects are eligible for up to 75 percent of the total project costs or $10,000,000, whichever is less.

The minimum funding amount per Application is $1,000,000.

5. MAXIMUM NUMBER OF APPLICATIONS

Applicants are only eligible to submit one application under this solicitation.

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[1] http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf

Spanish: http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-Spanish-CMF.pdf

[2] http://www.casustainablefreight.org/

[3] http://www.opr.ca.gov/s_zero-emissionvehicles.php

[4] http://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm

[5] https://www.fhwa.dot.gov/fastact/factsheets/itsprogramfs.cfm

6. ELIGIBILITY

This competitive solicitation is open to all California seaports[6], marine terminal operators[7] at these seaports, local air districts[8], and seaport tenants that directly support freight movement at seaports.

At a minimum, all eligible Applicants must include in their proposed project: 1) an original equipment manufacturer (OEM) ***or*** a technology integrator with an OEM and 2) end-user fleets.

7. PROJECT REQUIREMENTS

All projects must be for freight transportation projects at one or more California seaports.

To be eligible, projects must:

- Field demonstrate in California Class 3 through Class 8 vehicle(s) having gross vehicle weight rating (GVWR) of 10,001 lbs. or greater.
- Have a pre-commercial, electric, hybrid-electric, fuel cell electric, low NOx[9], engine or propulsion or propulsion component technology.
- Demonstrate vehicle technologies to prove or validate their technical or market viability prior to commercial production and/or sale.
- Include new or repowered vehicle technologies.
- Demonstrate vehicles for a minimum of 12 months.

Intelligent transportation systems and technologies (ITS) projects are eligible but must be included as part of an application for the demonstration of advanced vehicle technologies as noted above and include quantifiable environmental benefits.

Eligible ITS projects may include, but are not limited to:

- Connected vehicles
- Technologies that reduce idling and emissions of on-road freight movement vehicles
- Transportation management systems that improve traffic at port gates and marine terminals.
- Freight optimization along freight movement corridors, or within freight warehouse distribution centers.

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[6] http://www.dot.ca.gov/hq/tpp/offices/ogm/seaports.html; Ports of Benicia, Hueneme, Humboldt Bay, Long Beach, Los Angeles, Oakland, Redwood City, Richmond, West Sacramento, San Diego, San Francisco, and Stockton.

[7] http://www.fmc.gov/resources/marine_terminal_operators.aspx

[8] http://www.arb.ca.gov/capcoa/roster.htm

[9] Low NOx engine refers to ARBs adopted optional low NOx engines with a current NOx standard of 0.02 grams per horsepower-hour or less.

The following project types are ***not*** eligible:

- Paper studies (e.g., feasibility studies)
- Surveys
- Research
- Case studies
- Non-field vehicle demonstrations
- Development of first prototypes
- Tests for regulatory compliance or to meet certification protocol[10]
- Buses
- Commercially available technologies (NOTE: ITS technologies are exempt)
- Stand-alone ITS projects without demonstration of MHD advanced vehicle technologies
- Activities not directly related to freight handling or movement

Disadvantaged Communities (DACs): Projects covered by this solicitation are encouraged to achieve reductions in GHG and pollutant emissions that benefit DACs. All Applications must identify and describe how the project benefits DACs.

The Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency (CalEPA) has developed the California Communities Environmental Health Screening Tool: CalEnviroScreen Version 2.0 (CalEnviroScreen 2.0)[11]. The CalEnviroScreen 2.0 tool will be used by the Energy Commission to identify DACs, defined as scoring in the top 25th percentile, and maximize the benefits to these communities from this solicitation. All applications must use the CalEnviroScreen tool to identify and verify how their projects benefit DACs.

8. MATCH FUNDING REQUIREMENTS

Applications must include at least 25 percent of total project costs as match share of which at least 10 percent of total project costs must meet the definition of ***cash*** match share.

Cash match means the net of any funds actually expended by the applicant for the project after any sort of discount or rebate is applied. Expenditures for applicant's compensated labor hours, including allowable fringe benefit and overhead rates, travel, materials, supplies, equipment, subcontractor costs, and other miscellaneous expenditures may be claimed as cash match if the expenditures are included in the approved agreement budget, paid in full with funding sources other than grant funds, and supported with appropriate documentation, including proof of payment. For indirect overhead, backup

[10] http://www.arb.ca.gov/msprog/cert.htm

[11] http://oehha.ca.gov/ej/ces2.html

documentation, such as a cost allocation plan based on actual expenditures incurred and paid, is required. Cost allocations must be reasonable and allocable to the proposed project.

9. SCORING CRITERIA

a. **Team Experience and Qualifications (10 Max Points)**

1) Degree to which the project team's experience and qualifications are well-rounded and suitable to the tasks described in the proposed Scope of Work.
2) Degree to which the Applicant demonstrates ability to meet project deadlines and milestones for past and current technology demonstrations.
3) Degree to which the Applicant demonstrates ability to respond to and mitigate project delays and issues that may arise during the proposed project.

b. **Path-to-Market (25 Max Points)**

1) Degree to which existing targeted vehicle market(s) and size for the proposed project technology is appropriate to advance MHD and ITS technologies to full commercialization and widespread deployment.
2) Degree to which the proposed technology is innovative and will establish the technology as a cost-competitive purchase option. Include the specific number and type of vehicles in the proposed project by vehicle class, vocation, and gross vehicle weight rating; estimates of future vehicle costs, annualized fuel costs, operations and maintenance costs, and compare to the baseline technology option.
3) Degree to which barriers and challenges to market penetration and commercial adoption for the proposed demonstrated technology are identified and addressed by the proposed project.
4) Degree to which the Applicant's path-to-market strategies will lead the proposed technology toward full commercialization.
5) Degree to which the time-to-market for the proposed technology accelerates commercial availability and deployment. Applicants should provide a timeline, projection of the quantity of products to be produced, and partnerships that must be developed.

c. **Implementation (15 Max Points)**

1) Degree to which the tasks in the Scope of Work and the dates in the project schedule are complete, sequential, and will lead to successful and scheduled completion of the project.
2) Degree to which control of the project site, equipment, and refueling infrastructure.

3) Degree to which the proposed project has progressed towards achieving compliance under the California Environmental Quality Act (CEQA). If CEQA compliance has not been obtained, applications must include a schedule to complete CEQA activities for the proposed project.
4) Degree to which the total number of demonstration miles and/or hours for each proposed vehicle/equipment is appropriate to confirm and validate the proposed technology under demonstrated duty and performance cycles.
5) Degree to which customer support service will be deployed to address vehicle/equipment issues in the field when they arise during the demonstration period.
6) Degree to which the proposed technology will continue to operate beyond the term of the Energy Commission's funding agreement.
7) Degree to which data collection and analysis will be used to inform strategies for path- and time-to-market options and timelines.

d. **Budget (10 Max Points)**
1) Degree to which the proposed budget is cost-effective to the Energy Commission. Provide the ratio of Energy Commission reimbursed costs per vehicle demonstrated.
2) Degree to which state funds are necessary for the proposed project. Applicant should describe all funding options that were considered for the project.
3) Degree to which the source, type, and amount of match share funds committed to the proposed project are described, documented and committed to the proposed project.
4) Degree to which the proposed project costs will continue to drive down previous costs of technology integration, build, procurement, and demonstration.

e. **Economic Benefits (10 Max Points)**
1) Degree to which the proposed project will result in high quality jobs within California as a direct result of the proposed project. Applicants should indicate whether the jobs are temporary and/or permanent.
2) Degree to which the proposed project directly increases local and regional economic activity.
3) Applicants should describe, in real dollars, the estimated commodity value of freight handled/moved as a direct result of the demonstrated technologies.

f. **Environmental Benefits and Cost-Effectiveness (30 Max Points)**
1) Degree to which the baseline technology, fuel type, and vehicle class for the proposed project for advanced vehicle demonstrations is described and appropriate for the proposed project.

2) Degree to which the proposed project reduces annual lifecycle GHG reductions (expressed in annual metric tons CO2 reduced during the project demonstration period).
3) Degree to which the proposed project reduces the emission of oxides of nitrogen (NOx) and particulate matter (PM) (expressed in annual tons reduced during the project demonstration period).
4) Degree to which the proposed project has a higher Benefit/Cost score defined as the ratio of grams CO2 equivalent reduction per dollar of Energy Commission investment over the project demonstration period. Provide calculations and assumptions.
5) Degree to which the proposed project displaces petroleum transportation fuel(s) in terms of diesel gallon equivalents (DGEs).
6) Degree to which the proposed project will benefit DACs. Applicants should use the CalEnviroScreen 2.0 Tool to identify DACs and provide all zip codes for the proposed project.
7) Degree to which the proposed project reduces criteria pollutant emissions resulting from the proposed project. Discuss how the proposed project maintains or improves upon emission reductions and air quality benefits in the State Implementation Plan for Ozone, California Phase 2 Reformulated Gasoline standards, and diesel fuel regulations. These requirements are described in the Air Quality Guidelines for the Air Quality Improvement Program and the Alternative and Renewable Fuel and Vehicle Technology Program that can be found at http://www.arb.ca.gov/regact/2008/aqipfuels08/oalfinreg.pdf.